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## Citizen participation in Steinkjer: Stories about the “old NRK building at Lø”

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**Abstract.** This paper follows the process of developing a pilot project at Lø in Steinkjer, where a zero emission neighbourhood was planned and which included the upgrading of the old offices of the Norwegian Broadcasting Company (NRK) to a zero emission kindergarten. The decision-making process up to March 2018 is described. When the decision to demolish the NRK building and build a new kindergarten at Lø was made, stopping plans for a ZEN pilot project. The decision was based on the wishes of representatives from two kindergartens who were to be co-located in the planned zero emission kindergarten. The paper asks why two different understandings of the needs of the project were established and proposes solutions for avoiding disaffection with projects with high energy and environmental ambitions during the early stages of the development process.

**Method.** An ethnographic process was carried out by the Research Centre for Zero Emission Neighbourhoods in Smart Cities (ZEN Centre) in collaboration with Steinkjer Municipality in Norway in 2017 and 2018. The process included participant observation, individual semi-structured interviews and group interviews.

**Results.** During the planning process, the representatives from the kindergartens experienced that they were not heard, and that the needs of the building users were peripheral to the discussions taking place. When the chairmanship of Steinkjer Municipality took the decision to demolish the old NRK building and build a new kindergarten at Lø, the kindergarten representatives finally felt that user needs were in focus. The process is presented and discussed in the form of two main stories. (1) The citizen’s story about the kindergarten at Lø, where the kindergarten representatives’ reasons for their request for a new, rather than upgraded kindergarten building, are told. (2) The story about the ZEN pilot project in Steinkjer, that is external, and concept based. In this story, the reasons for the enthusiasm for the pilot project by Steinkjer municipality and ZEN researchers are explained.



## 1. Introduction

According to the Research Centre for Zero Emission Neighbourhoods in Smart Cities (ZEN Centre), in the future, zero emission neighbourhoods in Norwegian towns and cities will enable a significant improvement in energy efficiency, increase the supply of affordable renewable energy and help to reduce CO<sub>2</sub> emissions. Examples of zero emission buildings already exist, but zero emission neighbourhoods are still only a vision for the future in the heads of researchers. To realize the vision, the ZEN Centre is developing technical solutions that are to be implemented in nine pilot projects throughout Norway. In the pilots, zero emission technologies meet users: residents, workers, building managers and others, whose support for the goals of the ZEN centre cannot be taken for granted.

This paper is about what happens if citizens “sabotage every good design intention”, because they do not “share the goal to achieve zero emissions.” [1]. Learning from pilot projects should be agnostic as to whether the pilot is a success or a failure. However, too often pilots are presented as hero stories in which actors overcome difficulties and succeed, having achieved a heroic deed against all obstacles. We avoid such a one-sided account by exploring the multiple stories that can be told about a pilot. As we will show, one group’s success story can easily become another group’s story of failure. We do so based on results from an ethnographic process carried out by the ZEN Centre in collaboration with Steinkjer Municipality in 2017 and 2018. In the Autumn 2017, researchers from the ZEN Centre began following the planning process around the rehabilitation of the old Norwegian Broadcasting Company (NRK) offices at Lø, in Steinkjer. The intention was that the office building was to become a zero emission kindergarten and a number of zero emission houses would be built on the site around the kindergarten. The process is described up to March 2018 when Steinkjer Municipality’s executive committee made the decision to demolish the NRK building and build a new kindergarten at Lø, stopping plans for a ZEN pilot project. The decision was based on the wishes of representatives from two kindergartens who were to be co-located in the planned zero emission kindergarten. The paper asks why different understandings of the needs of the project were established and proposes solutions for avoiding disaffection with projects with high energy and environmental ambitions during the early stages of the development process.

The example from Lø highlights the challenges of involving citizens in pilot projects. The paper starts with a discussion about the use of pilot projects and experimental actions in technology development, next the physical and social context around the old NRK building is presented. The third section introduces the methodology. Results from the ethnographic process are presented in the fourth section, in the form of two main stories. (1) The story about the kindergarten at Lø, where the kindergarten representatives’ reasons for their request for a new, rather than upgraded kindergarten building, are told. (2) The story about the ZEN pilot project in Steinkjer. In this story, the reasons for the enthusiasm for the pilot project by the municipality and ZEN researchers are explained. A short discussion and conclusion complete the paper.

## 2. The role of pilot projects

The old NRK building and its surrounding grounds was to become a zero emission neighbourhood. The ZEN Centre defines a neighbourhood as “a set of interconnected buildings and associated infrastructure, located in a confined geographical area” and a zero emission neighbourhood “aims to reduce its direct and indirect greenhouse gas (GHG) emissions to zero.” [2]. Technologies required to support the establishment of zero emission neighbourhoods are being tested and demonstrated in nine pilot neighbourhoods throughout Norway [3]. New technical solutions are demonstrated in real-life contexts to stakeholders and user groups outside the research team [4].

In ZEN pilot projects citizens have been given two main roles, these are testing the technologies and receiving information about zero emission neighbourhoods and technologies, but in none of the nine neighbourhoods have citizens themselves asked to be part of the pilot projects. According to Heiskanen et al. (2015) from the perspective of “non-technologists” local experiments may run into conflict when they meet the “everyday concerns and mandated responsibilities of different parties.” [5]. Pilot projects

and experiments are not always directly comparable, but the “low carbon labs” described by Heiskanen have similarities and experimental processes are also applied within pilot projects by ZEN [6]. Technologies cannot be just dropped into an existing context, nor can we expect residents to simply accept serving as a test bed [5, 7]. Local expectations about the role and usefulness can be different to those developing the experimental concept. Citizens gain little satisfaction from exploring solutions, they want solutions that are proven to work [5].

In experimental actions, as in any citizen engagement process, a just outcome is made possible through use of local knowledge, information disclosure on the part of the organisers and good institutional representation [8]. The stories that follow show that these factors cannot be taken as given and a lack of them can inspire unexpected behaviour from the citizens involved.

In this paper we analyse the difference between experimentators and those experimented on as part of a difference between two storylines. The experimentators are those who have understanding of concepts and solutions external to the place, whilst those experimented on have spatialised experience based on local everyday practices [9]. The difference between external and local understandings of a place is often described as top-down versus bottom-up. The ambition when engaging with citizens is to enable a meeting in the middle, combining understandings and avoiding the tokenism often experienced by citizens in participatory processes [10]. The stories told about Lø depend on who is telling them and where they stand in the process and in relationship to the place. Using stories to present pilot experiences offers an alternative to one-sided accounts and allows us to make space for the citizen's voice. A story is a meaningful entity that follows a sequence of events, a beginning, a middle, and an end [11]. Stories can be understood in terms of their ingredients; perspectives, characters, context, imagery and language [12] or strategies, barriers and goals [13].

In energy research, Janda and Topouzi (2015) have found that the "hero's story" is often used to present results from the implementation of new technologies. The hero story is a success story that is inspiring and positive, but there are other types of stories, such as learning or caring stories, that can tell us about what happens when new technologies are introduced [14]. The hero story avoids the less successful aspects, and when telling this story there is often no correlation between what is predicted or proposed, and the results presented. In a learning or caring story, there is more room to describe how things developed, to talk about the local people involved, the place and issues that arose along the way. There are elements of success, learning and caring in stories that have been gathered in Steinkjer.

### **3. Transforming the old NRK building at Lø into a zero emission pilot**

The Lø neighbourhood is 1.5 km from Steinkjer city centre, a typical Norwegian suburban area composed mainly of detached houses, with a primary school, sports field and community centre. The old NRK building, which dates from the 1980s, stands on a centrally located plot of 11 113 m<sup>2</sup>, in Lø. Sørليا and Figga kindergartens, are located in Lø, and they require larger, more up to date buildings. Steinkjer Municipality purchased the NRK building and the surrounding plot of land in 2016. The intention then was to merge the two kindergartens in a new building.

In the spring 2017, Steinkjer Municipality became a ZEN partner, and the NRK site was chosen as the pilot project in Steinkjer. A memo from the ZEN Centre [15] showed that renovation would cause significantly lower greenhouse gas emissions than the construction of a new building. The upgrading of the NRK building, and interaction with homes planned on surrounding site, would result in a zero emission neighbourhood at Lø. In the Autumn 2017, Steinkjer Municipality organised a user participation process aimed at securing the involvement of the two kindergartens in the design and development of the zero emission kindergarten. The old NRK building was to become a six-department kindergarten and in November 2017 a firm of architects was hired to develop a draft proposal [16].

On March 8th, 2018, the chairman of the municipality delivered a recommendation to the municipality's executive committee to renovate the old NRK building for kindergarten purposes [17]. On the same day, the managers of Figga and Sørليا kindergartens sent a letter arguing for a new building rather than renovation of the NRK building. The executive committee made the decision to demolish

the NRK building and build a new kindergarten on the site. The decision meant that the project was no longer suitable as a ZEN pilot project. The carbon emissions from the demolition of the old NRK building cannot easily be retrieved by other actions, making it challenging and costly to achieve zero emissions on site.

#### 4. Methodology

The methodological approach is anthropological, which is context-based, where the choice of methods is made in relation to needs defined by both time and place during the fieldwork. This approach does not just include participant observation, which can be difficult to apply in contemporary contexts due to limited access to people and places [18]. The approach is used to gather "reliable knowledge" about the social context that can be used to understand and propose changes [19]. The research is anonymous, but the participants have given consent to the use of their roles and the names of the kindergartens.

The ethnographic process had two stages, both of which applied qualitative methods (Table 1). We initially intended to follow the design and development process, and through discussions with end-users develop an experiment that would support the testing and demonstration of the ZEN Centre's goals and/or technologies. In this first stage participant observation was applied. ZEN researchers were invited to take part in workshops, meetings and a site visit. Actions that were organised by the municipality as part of a user participation process that is standard procedure during public building development. The second stage began after the decision to demolish the old NRK building was made. The idea of gathering background information upon which to develop an experiment was rejected and semi-structured interviews became the main method. The intention was to gather more detailed knowledge about why different understandings of the needs of the project were established.

**Table 1.** Overview of the activities that are part of the ethnographic process (several meetings took place before the research process was initiated, but these are not included in the analysis)

Activity	Role	Number of participants
Meeting at Figga barnehage: 04.12.2017	Steinkjer Municipality (SM), kindergarten managers, employees, parent representatives, ZEN researchers	- Ca. 30 people
Site visit NRK building and grounds: 14.12.2017	SM, kindergarten managers, employees, Architect, ZEN researchers	- Ca. 17 people
Meeting Steinkjer Municipality: 14.12.2017	SM, kindergarten managers, architect, ZEN researchers	- 9 people
Meeting Steinkjer Municipality + ZEN via skype: 18.12.2017	SM, kindergarten managers, ZEN researchers	- 11 people
Meeting 09.02.2018 Steinkjer Municipality	SM, kindergarten managers, ZEN researchers	- 7 people
<b>The decision to demolish the old NRK building was taken 08.03.2018</b>		
Skype interview 12.03.2018	Komposium development	- 1 person
Group interview skype	Komposium development, SM development department, ZEN	- 4 people
Interview 15.03.2018	Manager, Figga kindergarten	- 1 person
Interview 15.03.2018	SM Department of early childhood	- 1 person
Interview 19.03.2018	Manager, Sørليا kindergarten	- 1 person
Interview 19.03.2018	SM planning and development	- 1 person
Skype meeting 06.04.2018	SM and ZEN researchers	- 6 people
Skype interview 24.04.2018	SM Steinkjerbygg	- 1 person

SM – Steinkjer Municipality. Komposium Development was hired by SM to run the participation process.

## 5. Results: Two stories

Representatives from the Development and the Planning Departments in Steinkjer Municipality do not regard the story about the pilot project as a success story, because a zero emission neighbourhood will not be developed at Lø. The story is a success-story for representatives from Sørليا and Figga kindergartens. Demolition of the NRK building means that they will get the new kindergarten that they have been waiting for since 2013.

### 5.1 *The kindergarten*

The kindergarten representatives were not satisfied with the plans for the NRK building and felt that the recommendation sent to the executive committee did not take into account the kindergartens needs. They therefore wrote a letter to the executive committee explaining why they wanted a new rather than renovated building. There are two main reasons why the kindergarten representatives understanding of the project's needs was different to the municipality and ZEN Centre's:

1. Prehistory: The development of a kindergarten at Lø started in 2013. A representative told us, "There was a lot of frustration that wasn't just about ZEN. When you came in, we were already on the minus side. It's been a very long process. Back and forth in relation to agreements that should be in place. Lots of frustration and waiting. First, we considered Sørليا (as a location). Then there was the purchase of the NRK building. It was too expensive. Was it possible at Sørليا? No. Back to NRK. There was still no formal agreement with Figga. Then there was the question of how big the kindergarten should be, 4 or 6 departments? This was still being considered before Christmas (2017)."

The process had already lasted five years and was characterised by a lack of clarity and agreements. The kindergarten representatives were originally promised a new kindergarten building, and they had presented this to their employees and the parents of the children. Then without being consulted they were involved in renovating the old NRK building into a zero emission kindergarten.

2. Lack of information: ZEN was not well known in Steinkjer Municipality. The Planning and Development departments had knowledge about ZEN, but the Department of Early Childhood, which is responsible for following up the kindergartens did not, nor did the kindergartens, who are also part of the municipality. One of the kindergarten representatives told us "The biggest challenge is information about what is happening. We had to ask for information all the time." Steinkjer Municipality became a ZEN partner and the NRK building became a pilot project without the kindergartens being informed. The issue was described in local newspapers before it was presented to the kindergartens. The kindergarten managers are responsible for meeting the needs of at least three different user groups, children, employees and parents, who were also unfamiliar with ZEN. When the decision to demolish the NRK building was taken, much of the uncertainty disappeared.

"Nobody knew what ZEN was, but the group work (during workshops) was about sustainable development. Nothing about merging the kindergartens...It was such a short space of time; we were just getting started."

The kindergarten representatives were sceptical to three solutions proposed for the ZEN kindergarten and they used them in the letter to the executive committee. (1) Solar panels on the roof, would they proposed need extra maintenance and would be costly, limiting the resources that would be available for other functional requirements. (2) Sharing the kindergarten premises with others user groups from the neighbourhood. This could have included using the building for celebrations and community events and renting out storage space in the basement. They were worried about privacy issues and the safety of the children. (3) Reducing the number of parking spaces for employees and parents. This reduction would have required a discussion about public transport (which is currently limited in the neighbourhood) and the use of bicycles. The three proposals were never concrete suggestions, they were mentioned in passing during meetings or presented in the memo about the NRK building [15]. Renewable energy supply, green mobility and multi-functionality are aspects that are linked to ZEN's

research activity. At Lø, it emerged that there are challenges in relation to users' interpretation of sustainable solutions and technologies, but after the decision to demolish the NRK building was taken, the kindergarten representatives did not want to appear negative to ZEN: "ZEN is not our adversary. We were only sceptical to the building." One of the kindergarten managers said, "I think demolition is positive for the kindergarten, but I realize it's not the best thing for the environment."

The ZEN concept was unfamiliar to the kindergarten, but they were familiar with the focus on sustainability, it is part of the Norwegian Directorate for Education's (2017) planning framework for kindergartens [20]. Kindergarten representatives understood the plan for sustainability in terms of everyday actions that the children would learn, such as picking up litter or having knowledge about nature, "the children are easy. They bring bags with them when we are out walking and will always pick up rubbish." A ZEN kindergarten would in principle have offered a physical context that made the directorate's and the municipality's sustainability goals easily attainable. However, as long as the ZEN concept was associated with factors the kindergartens were sceptical to, the potential associated with a sustainable building was not apparent.

### *5.2 The pilot project*

Access to new knowledge and a municipal network were among the main reasons why Steinkjer Municipality became a ZEN partner [17]. The objectives within Lø were to, test solutions for energy production and use in a neighbourhood context, clarifying the potential for economically and socially sustainable solutions, as well as facilitating business development. Initially, most focus was on discovering if the building was suitable for kindergarten purposes. In the Autumn 2017 a life cycle analysis of the building was completed [15] and architects developed a draft proposal for a six-department kindergarten [16]. A user participation process started where goals were to lay the foundations for a plan for the development of a kindergarten at Lø, for political decision-making and to gain social acceptance of the project, establishing an understanding of what the collaboration with the ZEN Centre would mean.

The participation process was summarized in November 2017, and the organizer proposed that they were well on their way to achieving the goals. Based on this and their own experiences during the participation process, representatives from Steinkjer municipality and ZEN believed that the project was moving in the right direction – pilot development. During a site visit to the NRK building in December, enthusiasm for the NRK building by kindergarten representatives was registered. A final meeting before the proposal to the executive committee was sent was organised in January 2018, where a municipal representative said, "We should be enthusiastic about Steinkjer developing a ZEN pilot project." The kindergarten representatives replied, "enthusiasm is not present. The ZEN kindergarten has come from the top down to us." and "ZEN is one thing which is delaying everything. Enthusiasm won't come." Despite these comments' representatives from the Planning Department and ZEN did not register any serious opposition and they were comfortable proposing that the NRK building be renovated and developed into a six department zero emission kindergarten, to the municipality's executive committee. After the decision to demolish, a ZEN researcher explained the process from his point of view,

"In retrospect, it is clear that kindergarten representatives saw a contradiction between a good kindergarten and ZEN. For me, they are two sides of the same thing, the building's function is most important. A zero emission kindergarten that is not a good kindergarten is a failure. All life cycle thinking is about function. It is possible this was not made clear during the dialogue, but for me it is basic. Energy and climate calculations should enable a good kindergarten."

The municipality and ZEN did not succeed in establishing a common understanding of why upgrading the NRK building was a fantastic opportunity. Kindergarten representatives saw a contradiction between the idea of a good kindergarten and a zero emission kindergarten. It is proposed here that the municipality and researchers did hear what was said during meetings, but interpretation was influenced by their own enthusiasm for the potential associated with the pilot project. Interpretation is often coloured by what is needed from a story or by where one stands within the social context [21].

## 6 Discussion

The two stories about the cancelled zero emission pilot differ considerably. Every story has a beginning, but where the pilot story starts with the decision to plan a zero emission neighbourhood, the story told by citizens had already run for many years. In terms of the stories' ingredients there are significant differences. External concepts about life cycle data and learning about zero emission technologies feature prominently in the researchers' and municipality's accounts, whereas the kindergarten representative's story is driven by local concerns for safety, speedy implementation, and installations that improve the kindergarten's immediate purpose: to be a good place for children and employees alike. It is remarkable how little the ZEN Centre is part of the story told by the kindergarten employees: ZEN is represented as something that should not be part the story and which is forced upon it 'from above'. A corresponding lacuna exists in the pilot project storyline. For the researchers and municipal supporters of the pilot project, the building's occupants remain mostly outside the story: as passive recipients given a 'fantastic opportunity'. The distance between the requirements of the external concepts and locally anchored understandings of the kindergarten was too great, and they never came close to meeting in the middle. Representatives from the kindergartens had no desire to be experimented upon and no need for untested solutions. The stories told highlight the importance of local knowledge and information exchange by the municipality because although routines for institutional representation were in place, the kindergarten's felt that their voices were not heard. The process was therefore not experienced as just representation. They understood it as token, focusing on the needs of the pilot project.

## 7 Conclusions

Pilot projects provide a means to test and disseminate future solutions, but an understanding of places as something more than where performance data can be extracted is essential [22]. Analysing the stories that are told about Lø can help us to understand what kind of support is needed in the early stages of a project. This case highlights the importance of the early establishment of forums for engagement and information exchange where new solutions appear realistic and relevant for the citizens and the local context. The most important goal of such forums would be to synchronize the various stories told about the future zero emission neighbourhood. At Lø, the ZEN centre could have worked much more actively to inscribe itself into the site's ongoing story. In addition, the future occupants should have been included as actors in the pilot story – from early on – instead as passive recipients. It will always be possible to tell different stories about a specific building or neighbourhood development. But if two central stories are allowed to drift too far apart, one of them will have an unhappy ending.

At the time of writing, the municipality has applied for demolition of the NRK building, and the tender for the new project advertised, but it is uncertain when the building of the new kindergarten will start. Steinkjer Municipality has chosen a new pilot project outside the city, Mære Agricultural College, which has very different challenges to those found at Lø [23].

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